Vienna Instruments
Clarinet in Bb II

Contents

Introduction

Welcome to the Vienna Symphonic Library, and thank you for purchasing one of our Vienna Instruments! This document contains the mapping information for the Clarinet in Bb II. You will find in it a comprehensive survey of the articulations/Patches content and the mapping list proper which gives details for every Patch, Matrix, and Preset.

Patch information

The Patch information includes articulation type, playing range, number of samples used, RAM requirements, the number of velocity layers and alternations, AB switching possibilities, etc., as well as Patch specific information if necessary. Here's an overview of the articulations/Patches contained in the Clarinet in Bb II Collection:

Short and long notes: Staccato; portato short, portato medium without and with vibrato; sustained without, with normal and progressive vibrato; flutter tonguing normal and crescendo
Dynamics: Light and strong dynamics without and with vibrato, 2/3/4 sec.; crescendo-diminuendo without and with vibrato, 2/4/6 sec.; fortepiano, sforzato, sforzatissimo without and with vibrato
Interval performances: Legato without and with vibrato; trills, minor 2nd to 4th (all other intervals legato)
Performance repetitions: Legato without and with vibrato; portato; staccato; normal and crescendo

Interval performances

Interval performances are one of the outstanding features of our Vienna Instruments. They allow you to play authentic legato without any programming tricks. In our Silent Stage, all intervals from minor second to the octave were recorded for every instrument – up and down, of course; that makes 24 interval samples per note for one velocity alone! When you load an interval performance Patch and play a line on your keyboard, the software automatically joins the right samples with their interval transitions again, and you hear a perfect legato. By the way, this technique is not only used for legato but also for other articulations like glissandos and clusters.

Interval performances also contain at least two legato repetitions for every note which alternate automatically whenever you strike a key more than once. There also are preconfigured thresholds for legato and repetition notes: The legato threshold – i.e., the maximum break between notes where legato is played – is 50 ms. Otherwise, a sustained starting note will sound so that you can easily start a new phrase without leaving the legato Patch. For note repetitions, the threshold is 200 ms: a break up to that duration will yield a legato repetition; if the break is longer, a new starting note. But naturally, it's mingling legato with other articulations which makes a piece really come alive.

Matrix information

Each Matrix listing contains information regarding the Patches used for the Matrix, the number of horizontal and vertical dimensions, and switching properties. A mapping table shows the Cell positions for each of the Matrix' Patches.

In order to facilitate working with **MIDI controller switches** such as the Modulation wheel, the switching positions are not distributed equally across the controller range if they control more than two Matrix rows or columns; the switching range will be narrower at extreme positions, and wider in the middle where it is harder to find the desired setting.

Pitch

For designating pitch, the Vienna Symphonic Library uses International Pitch Notation (IPN), which was agreed upon internationally under the auspices of the Acoustical Society of America. In this system the international standard of A=440 Hz is called A4 and middle C is C4. All pitches are written as capital letters, their respective octave being indicated by a number next to it. The lowest C on the piano is C1 (the A below that is A0), etc.

You can tune your Vienna Instruments to other players, or adjust it to tunings of earlier musical periods by setting the Perform page's Master Tune option within a range of 420 to 460 Hz.

40 Clarinet-Bb II

Patches

01 SHORT + LONG NOTES — Range: D3–G6

Level 1: Staccato
Short portato
Sustained without vibrato
Flutter tonguing, normal and crescendo

Level 2: Portato medium, without and with vibrato
Sustained with normal and progressive vibrato

01 KLB2_staccato — **Samples: 400** — **RAM: 25 MB** — **Level 1**

Staccato
4 velocity layers: 0–55 p; 56–88 mp; 89–108 mf; 109–127 f
8 Alternations

02 KLB2_portato_short — **Samples: 400** — **RAM: 25 MB** — **Level 1**

Portato, short
4 velocity layers: 0–55 p; 56–88 mp; 89–108 mf; 109–127 f
8 Alternations

03 KLB2_portato_medium — **Samples: 500** — **RAM: 31 MB** — **Level 2**

Portato, medium
4 velocity layers: 0–55 p; 56–88 mp; 89–108 mf; 109–127 f
Release samples
8 Alternations

04 KLB2_portato_medium-Vib — **Samples: 500** — **RAM: 31 MB** — **Level 2**

Portato, medium, with vibrato
4 velocity layers: 0–55 p; 56–88 mp; 89–108 mf; 109–127 f
Release samples
8 Alternations

11 KLB2_sus_noVib — **Samples: 518** — **RAM: 32 MB** — **Level 1**

Sustained, without vibrato
4 velocity layers: 0–55 p; 56–88 mp; 89–108 mf; 109–127 f
Release samples
3 Alternations
AB switch: release normal/falls

12 KLB2_sus_Vib — **Samples: 518** — **RAM: 32 MB** — **Level 2**

Sustained, with vibrato
4 velocity layers: 0–55 p; 56–88 mp; 89–108 mf; 109–127 f
Release samples
3 Alternations
AB switch: release normal/falls

13 KLB2_sus_Vib-progr **Samples: 450** **RAM: 28 MB** **Level 2**

Sustained, with progressive vibrato
4 velocity layers: 0–55 p; 56–88 mp; 89–108 mf; 109–127 f
Release samples
3 Alternations
AB switch: release normal/falls

21 KLB2_flatter **Range: D3–E6** **Samples: 92** **RAM: 5 MB** **Level 1**

Flutter tonguing
2 velocity layers: 0–108 f; 109–127 harsh
Release samples

22 KLB2_flatter_cre **Range: D3–E6** **Samples: 23** **RAM: 1 MB** **Level 1**

Flutter tonguing, crescendo
1 velocity layer

02 DYNAMICS Range: D3–G6

Level 1: pfp without vibrato, 2 and 6 sec.
fp and sfz without vibrato

Level 2: Light dynamics without and with vibrato, 2/3/4 sec.
Strong dynamics without and with vibrato, 2/3/4 sec.
pfp without vibrato, 4 sec.
pfp with vibrato, 2/4/6 sec.
sffz without vibrato
fp, sfz, sffz with vibrato

01 KLB2_dyn-li_noVib_2s (3s/4s) **Samples: 150** **RAM: 9 MB** **Level 2**

Light crescendo and diminuendo, 2/3/4 sec., without vibrato
3 velocity layers: 0–55 p; 56–108 mf; 109–127 f
AB switch: crescendo/diminuendo

11 KLB2_dyn-str_noVib_2s (3s/4s) **Samples: 50** **RAM: 3 MB** **Level 2**

Strong crescendo and diminuendo, 2/3/4 sec., without vibrato
1 velocity layer
AB switch: crescendo/diminuendo

21 KLB2_dyn-li_Vib_2s (3s/4s) **Samples: 150** **RAM: 9 MB** **Level 2**

Light crescendo and diminuendo, 2/3/4 sec., with vibrato
3 velocity layers: 0–55 p; 56–108 mf; 109–127 f
AB switch: crescendo/diminuendo

31 KLB2_dyn-str_Vib_2s (3s/4s) **Samples: 50** **RAM: 3 MB** **Level 2**

Strong crescendo and diminuendo, 2/3/4 sec., with vibrato
1 velocity layer
AB switch: crescendo/diminuendo

41 KLB2_pfp_noVib_2s **Samples: 50** **RAM: 3 MB** **Level 1**

Crescendo-diminuendo, 2 sec., without vibrato
2 velocity layers: 0–88 p; 89–127 f

42 KLB2_pfp_noVib_4s **Samples: 50** **RAM: 3 MB** **Level 2**

Crescendo-diminuendo, 4 sec., without vibrato
2 velocity layers: 0–88 p; 89–127 f

41 KLB2_pfp_noVib_6s **Samples: 50** **RAM: 3 MB** **Level 1**

Crescendo-diminuendo, 6 sec., without vibrato
2 velocity layers: 0–88 p; 89–127 f

51 KLB2_pfp_Vib_2s (4s/6s) **Samples: 50** **RAM: 3 MB** **Level 2**

Crescendo-diminuendo, 2/4/6 sec., with vibrato
2 velocity layers: 0–88 p; 89–127 f

61 KLB2_fp_noVib **Samples: 75** **RAM: 4 MB** **Level 1**

Fortepiano, without vibrato
1 velocity layer
3 Alternations

62 KLB2_sfz_noVib **Samples: 75** **RAM: 4 MB** **Level 1**

Sforzato, without vibrato
1 velocity layer
3 Alternations

63 KLB2_sffz_noVib **Samples: 75** **RAM: 4 MB** **Level 2**

Sforzatissimo, without vibrato
1 velocity layer
3 Alternations

71 KLB2_fp_Vib **Samples: 75** **RAM: 4 MB** **Level 2**

Fortepiano, with vibrato
1 velocity layer
3 Alternations

72 KLB2_sfz_Vib **Samples: 75** **RAM: 4 MB** **Level 2**

Sforzato, with vibrato
1 velocity layer
3 Alternations

73 KLB2_sffz_Vib **Samples: 75** **RAM: 4 MB** **Level 2**

Sforzatissimo, with vibrato
1 velocity layer
3 Alternations

10 PERF INTERVAL — Range: D3–G6

Level 1: Legato without vibrato

Level 2: Legato with vibrato

01 KLB2_perf-legato_noVib — Samples: 1850 — RAM: 115 MB — Level 1

Legato, without vibrato
Monophonic
4 velocity layers: 0–55 p; 56–88 mp; 89–108 mf; 109–127 f
Release samples
AB switch: release normal/falls

02 KLB2_perf-legato_Vib — Samples: 1850 — RAM: 115 MB — Level 2

Legato, with vibrato
Monophonic
4 velocity layers: 0–55 p; 56–88 mp; 89–108 mf; 109–127 f
Release samples
AB switch: release normal/falls

12 PERF TRILL — Range: D3–G6

Level 2: Trills, minor 2nd to 4th

01 KLB2_perf-trill — Samples: 3668 — RAM: 229 MB — Level 2

Performance trills, minor 2nd to 4th
Monophonic
4 velocity layers: 0–55 p; 56–88 mp; 89–108 mf; 109–127 f
Release samples
AB switch: release normal/falls

13 PERF REPETITION — Range: D3–G6

Level 1: Legato without vibrato
Portato
Staccato

Level 2: Legato with vibrato
Crescendo for all repetitions

01 KLB2_perf-rep_leg_noVib — Samples: 250 — RAM: 15 MB — Level 1

Legato, without vibrato, 5 repetitions
2 velocity layers: 0–88 p; 89–127 f
5 Repetitions

02 KLB2_perf-rep_leg_Vib — Samples: 250 — RAM: 15 MB — Level 2

Legato, with vibrato, 5 repetitions
2 velocity layers: 0–88 p; 89–127 f
5 Repetitions

03 KLB2_perf-rep_por **Samples: 450** **RAM: 28 MB** **Level 1**

Portato, 9 repetitions
2 velocity layers: 0–88 p; 89–127 f
9 Repetitions

04 KLB2_perf-rep_sta **Samples: 450** **RAM: 28 MB** **Level 1**

Staccato, 9 repetitions
2 velocity layers: 0–88 p; 89–127 f
9 Repetitions

21 KLB2_perf-rep_cre5_noVib **Samples: 125** **RAM: 7 MB** **Level 2**

Legato, crescendo, without vibrato, 5 repetitions
1 velocity layer
5 Repetitions

22 KLB2_perf-rep_cre5_Vib **Samples: 125** **RAM: 7 MB** **Level 2**

Legato, crescendo, with vibrato, 5 repetitions
1 velocity layer
5 Repetitions

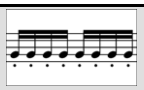
23 KLB2_perf-rep_cre9_por **Samples: 225** **RAM: 14 MB** **Level 2**

Portato, crescendo, 9 repetitions
1 velocity layer
9 Repetitions

24 KLB2_perf-rep_cre9_sta **Samples: 225** **RAM: 14 MB** **Level 2**

Staccato, crescendo, 9 repetitions
1 velocity layer
9 Repetitions

15 FAST REPETITION Range: D3–G6



Level 2: Fast repetitions, staccato, 120 to 180 BPM

01 KLB2_fast-rep_120 (130/140/150/160/170/180) **Samples: 100** **RAM: 6 MB** **Level 2**

Staccato repetitions, 120 to 180 BPM
2 velocity layers
Release samples

16 FX

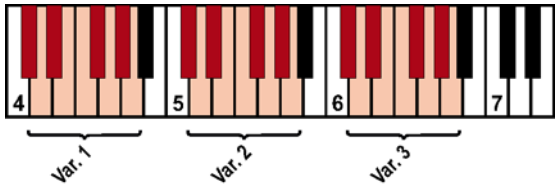
Level 2: Double-sound multiphonics, var. 1–4
Multiple-sound multiphonics, var. 1–7
Multiphonics by underblowing
Flaps (key clicks), tongue slaps
Falls and bends

Multiphonics describes a modern fingering and blowing technique which makes it possible to play two or more notes at the same time. Playing more than three notes simultaneously is extremely difficult.
The clarinet is blown in such a way that a partial (or several partials) of the fingered note speaks as well, or that only the partials sound. Multiphonics range from harmonic multiphonics (sounds that develop from a prime tone and harmonic partials) to sounds with inharmonic partials and complex sounds consisting predominantly of noise components.
Multiphonics are produced by using special fingerings and changing the force of attack at the same time or by using conventional fingerings with a radically altered embouchure. On the clarinet changing the force of attack plays a particularly important role. The instrument is often held experimentally in different positions.
Fingering charts for multiphonics can produce different results on different types of clarinet and must therefore be tried out.

01 KLB2_Multiphonics_DS1 (2/3/4) **Range: C#4–A6** **Samples: 81** **RAM: 5 MB** **Level 2**

Double-sound multiphonics, var. 1–4
The samples are mapped to their lowest sounding note, corresponding with their mapping from C#4 to A4. The two other sections have the same base notes but higher partials. The patches from 1 to 4 increase in sharpness of tone.
1 velocity layer
Release samples
2 Alternations

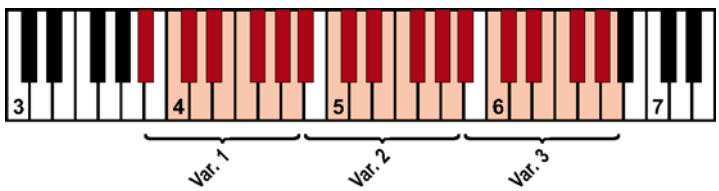
Mapping:
C#4–A4: Var. 1
C#5–A5: Var. 2
C#6–A6: Var. 3



11 KLB2_Multiphonics_MS1 (2/3/4/5/6/7) **Range: A#3–A6** **Samples: 99** **RAM: 6 MB** **Level 2**

Multiple-sound multiphonics, var. 1–7, with three or more distinct sounding pitches
The samples are mapped to their lowest sounding note, corresponding with their mapping from A#3 to A4. The two other sections have the same base notes but higher partials. The patches from 1 to 7 increase in sharpness of tone.
1 velocity layer
Release samples
2 Alternations

Mapping:
A#3, C4–A4: Var. 1
A#4, C5–A5: Var. 2
A#5, C6–A6: Var. 3



21 KLB2_Multiphonics_UB **Range: B3–F#6** **Samples: 48** **RAM: 3 MB** **Level 2**

Underblowing sounds. These multiphonics are created by underblowing and at the same time applying an overblowing fingering. The samples are mapped to their lowest sounding note, corresponding with their mapping from B3 to F#4. The two other sections have the same base notes but higher partials.
1 velocity layer
Release samples
2 Alternations

Mapping:
B3–D4, E4–F#4: Var. 1
B4–D5, E5–F#5: Var. 2
B5–D6, E6–F#6: Var. 3

31 KLB2_Flap **Range: D3–G6** **Samples: 130** **RAM: 8 MB** **Level 2**

Flaps or key clicks
1 velocity layer
Release samples
4 Alternations

32 KLB2_Slap **Range: D3–G6** **Samples: 100** **RAM: 6 MB** **Level 2**

Slaps or slap tonguing. Noises with a distinct pitch created by a special tonguing technique.
1 velocity layer
4 Alternations

33 KLB2_Bends-Down **Range: D3–G6** **Samples: 50** **RAM: 3 MB** **Level 2**

Downward bends – lowering pitch at the end of a note.
2 velocity layers

34 KLB2_Falls-Down **Range: D3–G6** **Samples: 50** **RAM: 3 MB** **Level 2**

Falls – short notes with a rapid downward run at the end.
2 velocity layers

17 BENDS — Range: D3–G6

Level 2: Bend release:
Sustained without and with vibrato
Legato without and with vibrato

01 KLB2_sus_noVib-bend — Samples: 468 — RAM: 29 MB — Level 2

Sustained, without vibrato
Bend release
4 velocity layers
Release samples
3 Alternations

02 KLB2_sus_Vib-bend — Samples: 468 — RAM: 29 MB — Level 2

Sustained, with vibrato
Bend release
4 velocity layers
Release samples
3 Alternations

11 KLB2_perf-leg_noVib-bend — Samples: 1356 — RAM: 84 MB — Level 2

Legato, without vibrato
Bend release
4 velocity layers
Release samples

12 KLB2_perf-leg_Vib-bend — Samples: 1356 — RAM: 84 MB — Level 2

Legato, with vibrato
Bend release
4 velocity layers
Release samples

Matrices

KLB2_L1_Art-Combi

Samples: 3715 RAM: 232 MB Level 1

Patches (all longer articulations without vibrato):
Staccato, short portato, sustained
fortepiano, sforzato, pfp 2 and 6 sec.
legato
legato and staccato repetitions
flutter tonguing

Matrix switches: Horizontal: Keyswitches, C1–F#1 Vertical: Modwheel, 2 zones

	C1	C#1	D1	D#1	E1	F1	F#1
V1	staccato	sustained	fp	legato	legato reps.	pfp 2 sec.	flutter tonguing
V2	portato short	sustained	sfz	legato	staccato reps.	pfp 6 sec.	flutter cres.

KLB2_L2_Art-Combi

Samples: 10587 RAM: 661 MB Level 2

Patches:
Staccato, short and medium portato
Sustained without, with normal and prograssive vibrato; vibrato/no vibrato X-fade
Fortepiano, sforzato, sforzatissimo
Legato without and with vibrato, trills
Repetitions legato without and with vibrato, portato, and staccato
fast repetitions, 120/140/160/180 BPM
flutter tonguing normal and crescendo
light and strong dynamics, 2/3/4 sec., vibrato/no vibrato X-fade
pfp, 2/4/6 sec., vibrato/no vibrato X-fade
sustained and legato with bend release, key flaps and slap tonguing

Matrix switches: Horizontal: Keyswitches, C1–A#1 Vertical: Modwheel, 4 zones

	C1	C#1	D1	D#1	E1	F1	F#1	G1	G#1	A1	A#1
V1	staccato	sustained no vib.	fp	legato no vib.	legato reps. no vib.	reps. 120 BPM	flutter	light dyn. 2 sec.	strong dyn. 2 sec.	pfp 2 sec.	sus. bend release
V2	portato short	sustained vib.	sfz	legato vib.	legato reps. vib.	reps. 140 BPM	flutter	light dyn. 3 sec.	strong dyn. 3 sec.	pfp 4 sec.	legato bend release
V3	portato medium	sustained prog.vib.	sfz	legato vib/no vib xfade	portato reps.	reps. 160 BPM	flutter cres.	light dyn. 3 sec.	strong dyn. 3 sec.	pfp 4 sec.	flaps
V4	portato medium	sus vib/no vib xfade	sffz	perf. trills	staccato reps.	reps. 180 BPM	flutter cres.	light dyn. 4 sec.	strong dyn. 4 sec.	pfp 6 sec.	slap tongue

KLB2_Multiphonics

Samples: 1065 RAM: 66 MB Level 2

Underblowing multiphonics
Double-sound multiphonics, var. 1–4
Multi-sound multiphonics, var. 1–7

Matrix switches: Horizontal: Keyswitches, C1–B1

	C1	C#1	D1	D#1	E1	F1	F#1	G1	G#1	A1	A#1	B1
V1	UB	DS1	DS2	DS3	DS4	MS1	MS2	MS3	MS4	MS5	MS6	MS7

Presets

KLB2 VSL Preset L1 **Samples: 3715** **RAM: 232 MB** **Level 1**

Matrix: KLB2_L1_Art-Combi

KLB2 VSL Preset L2 **Samples: 11652** **RAM: 728 MB** **Level 2**

Matrices:
KLB2_L1_Art-Combi
KLB2_Multiphonics
Matrix Keyswitches: C2–C#2